Abstract

An isolated protein designated p27 is disclosed. The p27 protein has an apparent molecular weight of about 27 kD, and is capable of binding to and inhibiting the activation of a cyclin E - Cdk2 complex. A nucleic acid sequence encoding p27 protein is disclosed, as well as a method for producing p27 in cultured cells. *In vitro* assays for discovering agents which affect the activity of p27 are also provided. Methods of diagnosing and treating hypoproliferative disorders are provided.